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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/823,162 | 03/30/2001 | Mauro Colombo | G93-059 | 8115 |
| 21706 | 7590 | 11/14/2003 | EXAMINER | |
| NOTARO AND MICHALOS 100 DUTCH HILL ROAD SUITE 110 ORANGEBURG, NY 10962-2100 | | | CADUGAN, ERICA E | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3722 | |
| DATE MAILED: 11/14/2003 | | | | 9 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--------------------------|------------------------|-----------------------------|------|
| Interview Summary | Application No. | Applicant(s) | |
| | 09/823,162 | COLOMBO, MAURO | |
| | Examiner | Art Unit Erica E Cadugan | 3722 |

All participants (applicant, applicant's representative, PTO personnel):

(1) Erica E Cadugan. (3) _____.

(2) Mark Conklin. (4) _____.

Date of Interview: 12 November 2003.

Type: a) Telephonic b) Video Conference
c) Personal [copy given to: 1) applicant 2) applicant's representative]

Exhibit shown or demonstration conducted: d) Yes e) No.
If Yes, brief description: _____.

Claim(s) discussed: discussed proposed amendment, attached hereto.

Identification of prior art discussed: all generally, U.S. 5,385,436 (Corsi) and U.S. 5,322,494 (Holtey et al.) specifically.

Agreement with respect to the claims f) was reached. g) was not reached. h) N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.



ERIC CADUGAN
PATENT EXAMINER

Examiner Note: You must sign this form unless it is an attachment to a signed Office action.

Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,

(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed the attached proposed amendment and comments. Regarding Applicant's comment that "the client has advised the term 'chuck' in the application was translated from the original Italian, in which the translated term is usually taken to mean the chuck and a supporting housing or device which contains the chuck, not just the portion which supports a tool, unless noted otherwise", Examiner noted that firstly, this did definition does not appear to be in line with the art-recognized definition for "chuck", and secondly, that there appeared to be no language in the specification that so limited the definition thereof. Examiner further noted that Merriam Webster's Collegiate Dictionary, 10th ed., defines chuck as "an attachment for holding a workpiece or tool in a machine (as a drill or lathe)", which definition is broader than Applicant's asserted definition.

Additionally, Applicant commented the following:

"A further feature which I believe is important is that the chuck unit 5 of the applicant's invention, as described, is supported on two independently rotatable supports, in addition to the rotation of a tool held in a chuck of the chuck unit. Thus, the chuck unit 5 described by the applicant can have movement in six axes altogether (X, Y, Z and A, C and B), 5 of which permit specific positioning of the tool. In addition, the chuck unit carrying the chuck is changeable so that different externally or internally powered chucks can be substituted for each other."

Examiner noted that there did not appear to be any claim language related to this comment that served to define over the prior art of record.

Additionally, Applicant proposed new claim 31, which combined previous claims 16, 18, and 21, and also added the limitation "and having a chuck for holding a tool". Examiner noted that the Corsi reference (U.S. Pat. No. 5,385,436) still appears to read on this claim as element 3 is a support for chuck 4 (see Figure 1), and thus the combination of elements 3 and 4 can be considered the claimed "chuck unit" and the chuck 4 is considered the claimed "chuck".

Examiner noted that the proposed amendment to claim 29 would serve to overcome the 112, second paragraph rejection thereof.

Applicant noted that they considered an interchangeable chuck unit which has a chuck for supporting a tool to be one of their inventive features. Examiner reiterated the office position that to be "interchangeable", that the chuck must merely be "able" to be interchanged, whether or not the device must be taken apart to do so. Examiner stated that it might be possible to add language to the claims relating to the structure of the present device that facilitates such interchangeability to overcome some of the prior art rejections, but also noted that U.S. Pat. No. 5,322,494 (Holtey et al.) teaches interchangeable chuck units with chucks mounted thereon.

Cadugan, Erica

From: mconklin@notaromichalos.com
Sent: Thursday, November 06, 2003 4:16 PM
To: Cadugan, Erica
Subject: U.S. Patent Application No. 09/823,162; Atty docket G93-059 US

Dear Ms. Cadugan:

Per our telephone discussion, please find attached a set of claims in *.pdf format for discussion next Wed. at 3pm. As agreed, I will initiate the call as I may be in our NYC office that day, but I am not certain as yet.

I note as that the client has advised the term "chuck" in the application was translated from the original Italian, in which the translated term is usually taken to mean the chuck and a supporting housing or device which contains the chuck, not just the portion which supports a tool, unless noted otherwise. I believe this has some bearing on how the claims and specification are interpreted.

A further feature which I believe is important is that the chuck unit 5 of the applicant's invention, as described, is supported on two independently rotatable supports, in addition to the rotation of a tool held in a chuck of the chuck unit. Thus, the chuck unit 5 described by the applicant can have movement in six axes altogether (X, Y, Z and A, C and B), 5 of which permit specific positioning of the tool. In addition, the chuck unit carrying the chuck is changeable so that different externally or internally powered chucks can be substituted for each other.

The client appreciates your assistance with regard to claim 31, but remains concerned that its scope is too narrow given their perceived differences with the prior art.

I look forward to discussing these claims with you next week and appreciate your consideration in granting the interview.

Respectfully,

Mark A. Conklin
Atty. Reg. No. 39,148

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Proposed Claims For Discussion Only - 11/12/03 @3pm Telephone Interview w/
Examiner Erica Cadugan

Application No. 09/823,162

Filed: March 30, 2001

Applicant: Colombo

For: Operating Head for Automatic Machine Tools...

The following claims are proposed for filing as part of an RCE. The remarks following explain the derivation of the claims from those presently in the case.

IN THE CLAIMS:

Please amend the claims, as follows:

Claims 1-28 (canceled).

29. (currently amended) An operating head for automatic machine tools comprising:

a first support adapted for rotation about a first axis and mounted on a structure movable in a set of three Cartesian axes;

a second support rotatably mounted to the first support for rotation about a second axis orthogonal to the first axis;

an interchangeable chuck unit, mounted to project from the second support;

a power transmission system having a coupling connected to a drive connected to a chuck of said chuck unit;

first means for controlling rotation of the second support about the second axis; and

second locking means for selectively locking the second support against rotation about the second axis.

30. (currently amended) An operating head according to claim 29, wherein the second locking means comprises a chamber having walls made of a deformable material and fluid means for introducing a pressurized fluid into the chamber to deform the walls and frictionally lock the second support.

31. (currently amended) An operating head for automatic machine tools, comprising:

a first support rotatably fitted on a structure, the first support rotatable around a first axis, the structure movable along a set of three Cartesian axes;

a second support fitted to the first support, the second support being rotatable around a second axis;

an interchangeable chuck unit projecting from the second support;

first means for controlling the rotation of the second support around the second axis; and

second locking means for locking the second support in a rotated position, the second locking means including a chamber having walls made of a deformable material fitted around the second support, the chamber connected to a fluid means for introducing a pressurized fluid into the chamber for deforming the chamber walls and locking the second support in the rotated position.

32. (previously presented) An operating head according to claim 31, wherein the interchangeable chuck unit is one of a motorized chuck and a power chuck.

33. (new) An operating head for an automatic machine tool having a structure movable along a set of three Cartesian axes, the operating head comprising:

a first support rotatably fitted to the structure for rotation about a first axis;

a chuck unit fitted to the first support, the chuck unit projecting from the first support and being rotatable to different angular positions around a second axis, the chuck unit being removable from the first support and having a chuck for holding a tool;

the first support includes a power transmission system and means for connecting the power transmission system to the chuck unit; and

a rotating support fitted to the first support, the chuck unit being mounted on the rotating support, and the rotating support controllable by means for controlling rotation of the rotating support around the second axis.

34. (new) An operating head according to claim 33, wherein the power transmission system comprises a drive having shafts and bevel gear pairs, connected on one side to a motor system of the structure, and having a coupling on the other side for connection to kinematic devices provided on the chuck unit.

35. (new) An operating head according to claim 34, further comprising a ring-shaped chamber connected at one side to exhaust devices and on the other side to a duct terminating adjacent the coupling of a tool, the ring-shaped chamber fitted to the structure.

36. (new) An operating head according to claim 35, wherein the duct is connected to the ring-shaped chamber by a rapid coupling, the duct being integral with and rotatably connected to the chuck unit.

37. (new) An operating head according to claim 33, further comprising a chamber having walls made of a deformable material fitted around the rotating support, the chamber being connected to fluid means for introducing a pressurized fluid into the chamber.

REMARKS:

____ Claims 29-37 are in the case and presented for consideration.

Claims 29-32 are amended to overcome the rejections made pursuant to §112.

New claim 33 combines the limitations of prior claims 16, 18 and 21. Claim 33 further specifically recites the chuck unit includes a chuck for holding a tool. This feature is supported in the specification at page 6, lines 2-4 and canceled original claim 14. Claims 34-37 correspond to claims 24-27, now made to depend directly and indirectly from claim 33.